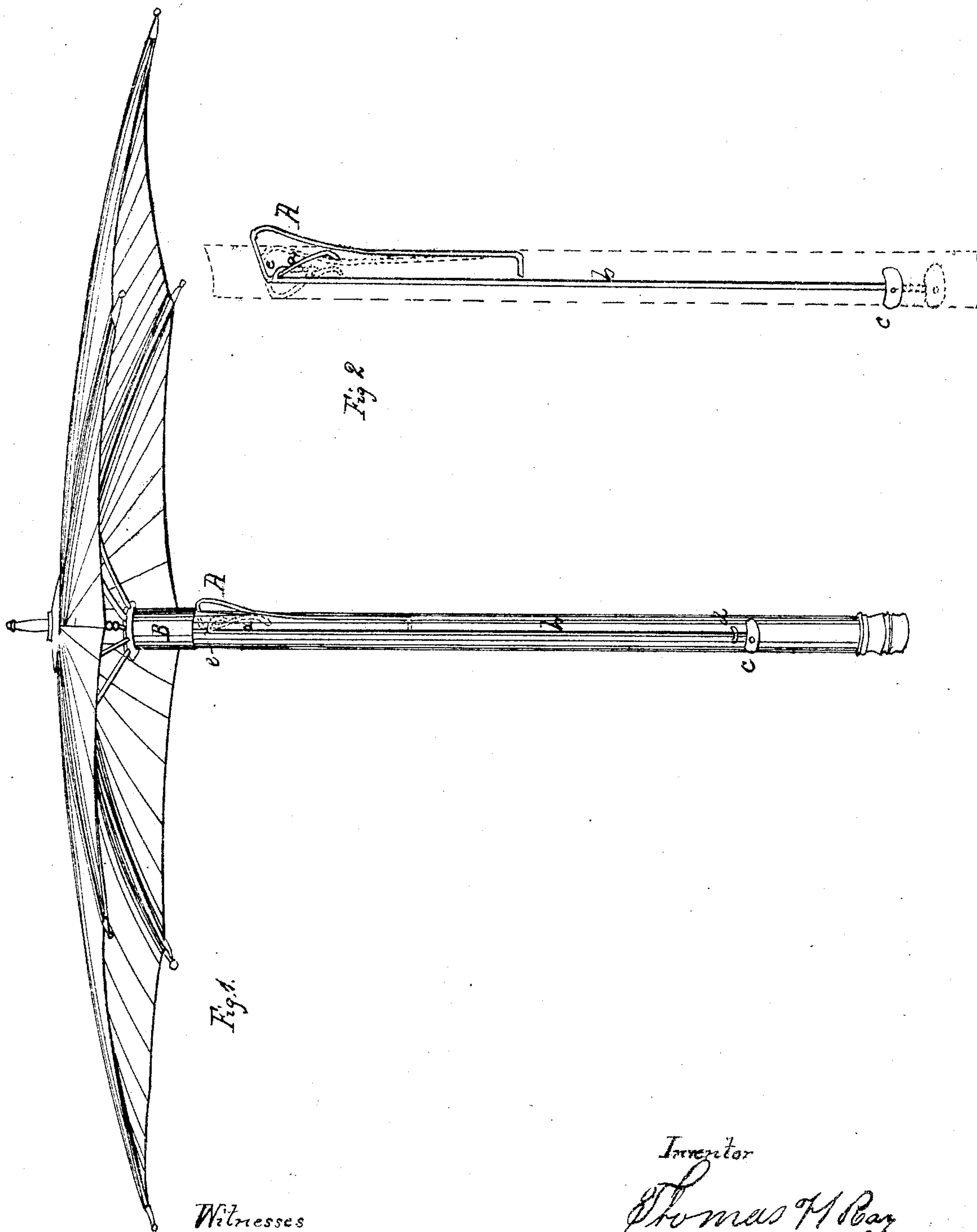


T.H. Ray.
Umbrella.

N^o 37,243.

Patented Dec. 23. 1862



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS H. RAY, OF NORTH ADAMS, MASSACHUSETTS.

IMPROVEMENT IN UMBRELLAS.

Specification forming part of Letters Patent No. 37,243, dated December 23, 1862.

To all whom it may concern:

Be it known that I, THOMAS H. RAY, of the town of North Adams, in the county of Berkshire and State of Massachusetts, have invented a new and useful Improvement in Umbrellas; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a perspective view of the umbrella spread for use, showing the spring-catch, which holds it spread, and the closing-rod, which (by sliding on the inclined plane of the spring-catch) depresses or forces the spring-catch inward, so as to allow the umbrella to close.

Fig. 2 is a perspective view of the spring-catch and the closing-rod (which depress it) in their relative positions, (with the umbrella-staff indicated by dots.)

My improvement consists in connecting a closing-rod (fitted longitudinally in the staff) with the spring-catch in such a manner that by drawing the rod downward (with the thumb or finger of the hand which holds the umbrella) it will force the spring-catch inward, so as to allow the umbrella to close, so that I can close the umbrella at once with the hand with which I am carrying it.

I make the staff and frame of the umbrella in any of the well-known ways or otherwise, and in the side of the staff I make a longitudinal groove, to receive the closing-rod *b*, as shown in Fig. 1, and a mortise (at right-angles to that for the spring-catch) to receive the upper or hooked end of the rod, as indicated by dots in Fig. 1. I make the spring-catch substantially in the form shown at A, Figs. 1 and 2—that is, I make the internal portion longer than usual, and bend it to the proper shape and position to form a suitable inclined plane, as shown at *a*, Fig. 2, and indicated by dots at *a*, Fig. 1. I attach this spring-catch to the staff in the usual way, as shown in Fig. 1. I make the closing-rod *b* (for acting on the spring-catch A) of a length sufficient to extend from the upper portion of the spring-catch to below the position to which

the slide or runner B, Fig. 1, (which sustains the stretchers or braces,) descends when the umbrella is closed. I bend the upper end of this closing-rod into a hook shape, as shown at *e*, Fig. 2, and indicated by dots at *e*, Fig. 1, where it hooks around the inner portion of the spring-catch A, so as to act on the inclined plane to force the spring-catch inward. I let this closing-rod *b* into the staff for its whole length, as shown in Fig. 1, and let the upper end or hook part into a mortise in the staff cut at right angles to that which receives the spring-catch, so that they are locked together in such a manner that each will hold the other in its place; and I secure the lower end of this rod *b* by a staple or hasp, as *d*, Fig. 1, through which it has a free longitudinal motion, and at the lower end of this rod I attach a suitable thumb-piece or knob, as shown at *c*, Figs. 1 and 2.

When all the parts are made and fitted as before described and the umbrella spread, the whole will appear as represented in Fig. 1.

When I wish to close the umbrella, I place either the thumb or a finger (of the hand with which I am holding the umbrella) on the knob *c*, and slide it downward, as indicated by dots in Fig. 2, which will draw the hook *e* of the upper end of the rod *b* along the inclined plane and force the spring-catch inward to the position indicated by dots in Fig. 2, so that the umbrella will at once collapse, and the inclined plane *a* on the spring-catch will draw up the rod *b* to its position, as in Fig. 1. Thus I am able to close the umbrella instantly with the thumb or finger of the hand with which I am holding it, and this is effected by means not liable to get out of order, of but trifling expense, and which may be readily attached to any umbrella already in use.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the closing-rod *b*, with the spring-catch A, when they are constructed, arranged, and fitted to produce the result, substantially as herein described.

THOMAS H. RAY.

Witnesses.

CHARLES WILSON,
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